

IMP. BUR.
- 6 AUG. 1919
ENTOM.

The Florida Buggist

Official Organ of the Florida Entomological Society.

VOL. 1

SUMMER NUMBER

NO. 1

June 21, 1917

THE FLORIDA ENTOMOLOGICAL SOCIETY ITS HISTORY AND AIMS

On January 5, 1916, eleven men interested in entomology, met at the University of Florida and formed the Florida Entomological Society. The editor of the *Entomological News*, published in Philadelphia, in noting this event, stated that ours is the first entomological society to be formed in the South. The first officers were: President, J. R. Watson, Experiment Station; vice-president, Wilmon Newell, Plant Commissioner; secretary-treasurer, R. N. Wilson, U. S. Bureau of Entomology; member of the executive committee, Dr. H. S. Davis, Department of Zoology, University of Florida.

Since then monthly meetings have been held except during the summer months, June to August. Several special meetings have also been called.

There is presented at each meeting one or more papers on some entomological subjects. These are freely discussed by the members present. Under the heading of "Brief and Timely Notes" members present observations on insects that appear to

The Kny-Scheerer Corporation

Department of Natural Science

404-410 West 27th St., New York, N. Y.

Entomological Supplies and Specimens of every description
Illustrated catalogue on application

be of interest at that time, review publications or some other event of an entomological nature. This has been one of the most interesting features of the meetings. The titles of the papers so far presented are:

FUNGUS DISEASES OF SCALE INSECTS AND WHITEFLIES—*Dr. E. W. Berger.*

THE VELVET-BEAN CATERPILLAR, *Anticarsia gemmatilis*—*J. R. •Watson.*

SOME METHODS OF HATCHING, REARING AND SHIPPING INSECTS—*R. N. Wilson.*

THE ECONOMIC IMPORTANCE OF INSECTS ON NURSERY STOCK—*F. M. O'Byrne.*

SOME FLORIDA APHIDS—*A. C. Mason.*

THE DICTYOSPERMUM SCALE—*A. C. Mason.*

COLOR FORMS OF THE LUBBER GRASSHOPPER—*R. N. Wilson.*

Delphastus Catalinae—A LADY-BEETLE FROM CALIFORNIA WHICH FEEDS ON WHITEFLIES—*J. R. Watson.*

THE OKRA CATERPILLAR—*H. L. Dozier.*

THE BLACK SCALE—*E. W. Berger.*

SOME PHASES OF CHINCH BUG INVESTIGATIONS—*R. N. Wilson.*

THE MOLTING OF MAYFLIES—*H. S. Davis.*

CONTROLLING PUMPKIN BUGS IN CITRUS GROVES—*J. R. Watson.*

REPELLING UNDESIRABLE BOARDERS—*K. E. Bragdon.*

BUG HUNTING AS A PASTIME—*Prof. W. S. Blatchley*, Indianapolis, Ind., and Dunedin, Fla.

THE CANE BORER—*J. C. Goodwin.*

ARTIFICIAL REARING OF VEDALIA—*A. C. Mason.*

BEE KEEPING IN FLORIDA—*Frank Sterling.*

LINSEED OIL IN BORDEAUX MIXTURE—*E. W. Berger.*

At the February meeting the Society voted to become a section of the Florida Academy of Science. Provision was made whereby those who, on account of the expense or other reason, do not care to become members of the Academy, may become associate members of the Society. Such members will have to pay only the annual dues of the Society (fifty cents.) They will have all the privileges and rights of members except a vote. The membership fee in the Florida Academy of Science is one dollar additional.

The aim of the Society is to stimulate an active interest in entomology on the part of Floridians. There is at the present time a marked dearth of amateur entomologists in the State.

Membership in the Society is by no means limited to profes-

sional entomologists. Anyone who is interested in, or desires information on "bugs" may become a member. Indeed, only a small proportion of the present members could be considered as professionals. The desire is to include among the members everyone interested in the insect fauna of the State, whether a resident or not.

The regular meetings are held on the third Monday of each month either in the late afternoon, 4:30 to 6:00, or in the evening, and usually in Science Hall at the University. Special meetings are called when anything of unusual interest arises. The meetings are open to anyone who cares to attend, whether or not he is a member of the Society.

We are anxious to have everyone in the State who may be interested to become a member. Non-resident members will have an opportunity to attend whenever they happen to be in Gainesville on a meeting night. Even if they never attend the meetings it should be to their distinct advantage to affiliate with us and in that way keep in closer touch with entomological happenings. Each member receives a notice of each meeting with the subject of the paper. If it is one in which he is especially interested, a non-resident member can probably arrange with the author to see the paper. It is, furthermore, the intention of the Society to hold special meetings when there are likely to be many non-resident members in Gainesville, such as the meeting week of the Citrus Seminar, or of canker inspectors. Perhaps, ultimately, arrangements can be made to hold occasional meetings in other cities on especial occasions, as for instance the meeting of the Florida State Horticultural Society.

Arrangements will also be made whereby members can get such insects identified as they may care to send in. The Experiment Station, State Plant Board, and the State Museum are each getting together reference collections which will facilitate identification.

OFFICERS AND MEMBERS

President—E. W. BERGER, Entomologist, State Plant Board, Gainesville, Fla.

Vice-President—H. S. DAVIS, Prof. of Zoology, University of Florida.

Secretary-Treasurer—K. E. BRAGDON, Dep'y Port & Ry. Inspector, State Plant Board, Gainesville.

Member Executive Committee—J. R. WATSON, Entomologist, Experiment Sta., Gainesville.

- Albrecht, C. J., Homestead, Fla.
Barnett, Harry B., Inspector, St. Plant Bd., Seffner, Fla.
Briggs, Wynfred R., Student, Univ. of Fla.
Brown, A. C., Dep'y Port & Ry. Inspector, St. Plant Bd., Tampa, Fla.
Carter, Howard G., Inspector, St. Plant Bd., Cocoa, Fla.
Chaffin, J., Asst. Nurs. Inspector, St. Plant Bd., Gainesville.
Clark, Virgil, Inspector, St. Plant Bd., Gainesville.
Dade, R. H. F., Asst. U. S. Bur. Entomology, Orlando, Fla.
Daniel, Leon A., Inspector, St. Plant Bd., Winter Haven, Fla.
Dozier, H. L., U. S. Bur. Entomology, Columbia, S. C.
Eikenberry, H. D., Inspector, St. Plant Bd., Gainesville.
Eiland, John, Inspector, St. Plant Bd., Dade City, Fla.
Gaston, B. O., Inspector, St. Plant Bd., Monticello, Fla.
Goodwin, J. C., Chief Clerk, St. Plant Bd., Gainesville.
Hall, James E. B., Asst. Nurs. Inspector, Sparr, Fla.
Hainlin, Neal E., Inspector, St. Plant Bd., Ft. Myers, Fla.
Harn, S. P., Asst. Nurs. Inspector, St. Plant Bd., Gainesville.
Hatcher, Fritz, Ft. McPherson, Ga., U. S. A.
Haywood, Frank E., Inspector, St. Plant Bd., Orlando, Fla.
Holton, Hon. J. C., Ocean Springs, Miss., office St. Plant Bd., Gainesville.
Hunt, Chas. M., Asst. Nurs. Inspector, Gainesville.
Innecken, Kurt F., Savannah, Ga.
Lawley, Harley H., Inspector, St. Plant Bd., Winter Haven, Fla.
Mason, A. C., Federal Horticultural Board, Laredo, Tex.
Miller, J. A., Oklawaha, Fla.
Montgomery, J. H., Grove Supervisor, St. Plant Bd., Buena Vista, Fla.
Newell, Wilmon, Plant Commissioner, Gainesville.
Nieland, F. C., Inspector, St. Plant Bd., Lakeland, Fla.
O'Byrne, F. M., Nursery Inspector, St. Plant Bd., Gainesville.
Poos, F. W., Jr., Asst. Nurs. Inspector, St. Plant Bd., Lakeland, Fla.
Potter, E. R., Inspector, St. Plant Bd., Seffner, Fla.
Prange, Mrs. N. M. G., Wilson-Toomer Fert. Co., Jacksonville, Fla.
Rahn, W. J., Inspector, St. Plant Bd., Wauchula, Fla.
Rolfs, P. H., Dean Coll. Agr., Dir. Exp. Sta., Gainesville.
Schumacher, Henry E., Inspector, St. Plant Bd., Homestead, Fla.

(Continued on page 8)

The
FLORIDA BUGGIST

Official Organ of The Florida Entomological Society, Gainesville,
Florida.

PROF. J. R. WATSON.....	Editor
DR. E. W. BERGER.....	Associate Editor
K. E. BRAGDON.....	Business Manager

Issued once every three months. Free to all members of the Florida Entomological Society.

Subscription price to those who are not members of the Society—60c per year in advance; 15c per copy.

THE FLORIDA BUGGIST

At the April meeting of the Florida Entomological Society the proposal was made by Dr. Berger that the Society publish a periodical to be known as "THE FLORIDA BUGGIST." The publication that herewith makes its initial bow to the entomological world is the result of that suggestion.

As the official organ of the Society it will contain the proceedings of the meetings, including at least an abstract of the papers presented. It will, as far as possible, publish original contributions on entomological subjects that members of the Society may offer, and any articles dealing with Florida insects by persons not members.

It will contain brief and timely notes on insects which, for any reason, are of especial interest at the time, such as new additions to the known fauna of the State, unusual outbreaks of common or rare species, pests liable to be introduced into the State, etc. It will also contain personal notes on members of the Society.

A section which we hope to make of value to readers is that of insects which, judging from past experiences, are likely to be troublesome during the season covered by each issue, i. e., the three months following its publication. Forewarned ought to be forearmed, and we hope by this means to supply our readers with some entomological armaments. We plan ordinarily to give under each insect the plant it attacks, the nature of the injury, the date of its probable appearance, control measures and references to literature.

We plan also to include reviews and notices of books, articles, bulletins, etc.

We hope that each and every member of the Society will take a personal interest in THE BUGGIST. Send us material in the form of original articles, notes, personal items, etc., as well as subscribers. The paper is yours.

TAKE NOTE

Our readers and members are requested to take note of the advertisements carried in this issue. A publication of this kind cannot be kept up without carrying advertisements to help in paying the cost of printing. The mere fact that ads. of certain companies appear in this paper is sufficient guarantee of their integrity, and readers need not hesitate in recommending their products. We should each one of us aid our advertisers in every legitimate way, since they in their turn aid us in keeping up this publication. If we can bring profitable returns to those companies it will mean more advertising matter for us and a larger and better publication will naturally result. This is not a magazine for profit, and every cent received will be used in making THE FLORIDA BUGGIST worthy of the perusal of anyone interested in the class of subject matter with which it deals.

K. F. R.

BRIEF AND TIMELY NOTES

On February 25 an adult specimen of the Mourning-cloak Butterfly (*Vanessa antiopa*, L.), was observed by Prof. J. R. Watson at Gainesville, Fla. This appears to be its farthest south record.

The Cottony Cushion Scale (*Icerya purchasi*, Mask.) is now known to occur as far north in Florida as Gainesville. Available information indicates that the pest came to Gainesville on contraband nursery stock from Pinellas County.

The caterpillar of the Spice-bush Swallowtail (*Papilio troilus*, L.), has twice been observed feeding on camphor at Gainesville, and one adult reared. In one instance the caterpillars were reported as abundant.

The Greenhouse Thrips (*Heliothrips haemorrhodalis*, Bouche) is now uncommonly severe in the State on citrus, avocado, mango and coleus.

The Citrus Spiny Whitefly (*Aleurocanthus woglumi* Ashby) is reported as severe in Cuba, Jamaica and New Providence.

This pest is not in Florida. It is estimated that it would eventually cost approximately \$3,500,000 to spray the 21,000,000 citrus trees now in Florida three times per year in order to control it if introduced. This is 100 times the amount of money that the State Plant Board now spends annually to keep it and other insects and diseases out, and to keep those already in from further spreading. This estimate does not include the cost of eradicating canker.

Among the bulletins recently put out by the Fla. Ag. Exp. Station are Bul. 134 on Florida Truck and Garden Insects, and Bul. 136 on the Control of Root-knot by Cyanamid.

Mr. H. L. Dozier, Laboratory Assistant in the Dept. of Entomology of the Expt. Station, and a charter member of our Society, has accepted a position with the U. S. Bur. of Entomology and is located at Columbia, S. C. Mr. Dozier took his master's degree in entomology at the University in June. His thesis, "An Ecological Study of the Piney Woods and Hammock Insects of the Gainesville Region," may be found in the University Library.

Mr. A. C. Mason, also a charter member of this Society, is now with the Federal Horticultural Board, U. S. D. A., and is located at Laredo, Texas.

Prof. H. S. Davis, the vice-president of our Society, will spend the summer vacation at the U. S. Bur. of Fisheries Laboratory at Fairport, Iowa.

Our Society has already contributed two members to the military forces of the nation.

Professor W. S. Blatchley, author of "Coleoptera of Indiana" and "Rhyncophora of the Eastern United States," addressed the Florida Entomological Society at Gainesville on the evening of February 5th. The subject presented was "Bug Hunting as a Pastime." Professor Blatchley is not a newcomer to Florida, and now spends a part of each year at his winter home at Dunedin. Other books written by him are "Boulder Reveries," "Woodland Idyls," and his well-known Florida book, "A Nature Wooing at Ormond-by-the-Sea."

March 29, 30 and 31, the Association of Cotton States Entomologists held their meetings at the University of Florida. Timely topics in regard to plant quarantine regulations were discussed. Besides entomologists, many of whom have charge of inspection and quarantine work, other chiefs of inspection departments of other states, including those in charge of Citrus Canker eradication, were present. The district inspectors in the

Citrus Canker eradication work in Florida had also been invited to be present. One whole day was therefore given up to a discussion of Citrus Canker. Among the prominent visitors present from without the State were: K. F. Kellerman, Washington, D. C.; W. D. Hunter, Washington, D. C.; A. C. Morgan, Tenn.; R. W. Harned, Miss.; Geo. G. Becker, Ark.; E. R. Jones, La.; E. Lee Worsham, Ga.; E. L. Ayers, Texas; Geo. L. Peltier, Ala.; W. E. Hinds, Ala.; J. B. Garrett, La.; W. A. Thomas, S. C.; Dr. O. F. E. Winberg, Ala., and Dr. W. H. Ludewig, Ala.

On the evening of March 29th, the Florida Entomological Society gave a smoker to the visiting entomologists and others attending the Association of Cotton States Entomologists, at which Florida products only were served, namely, grapefruit juice, giant pecans, oranges and other citrus fruits, and Gainesville-made cigars. About 200 attended the smoker. Dr. E. W. Berger gave a brief account of the artificial rearing of *Vedalia*, or Australian Lady Beetle, and the propagation of the Red Whitefly Fungus in pure cultures. Professor Wilmon Newell, Plant Commissioner, was toast-master of the evening.

THE FLORIDA ENTOMOLOGICAL SOCIETY

(Continued from page 4)

Stirling, Frank, General Inspector, St. Plant Bd., Gainesville.
 Swanson, A. L., Inspector, St. Plant Bd., Cocoa, Fla.
 Tedder, George E., Inspector, St. Plant Bd., Cocoa, Fla.
 Van Hyning, T., Curator Univ. Museum, Gainesville.
 Vaughn, Molloy C., Inspector, St. Plant Bd., Wauchula, Fla.
 Walker, Shirley, Inspector, St. Plant Bd., Wauchula, Fla.
 Wilson, C. E., Asst. Entomologist, St. Plant Bd., Gainesville.
 Wilson, G. H., U. S. A., Ft. McPherson, Ga.
 Wilson, R. N., County Agr. Demons. Agent, West Palm Beach, Fla.
 Woodruff, Seth L., Inspector, St. Plant Bd., Sanford, Fla.
 Yothers, W. W., U. S. Bur. of Entomology, Orlando, Fla.

ENTOMOLOGICAL FRIGHTFULNESS

If the common citrus whitefly is capable of such a thing, he would have a nervous chill could he but see what those attending the May meeting of the Society saw. Up in the attic of the State Plant Board Dr. Berger and Mr. Wilson have some two thousand bottle-cultures of Red *Aschersonia*, or Red Whitefly Fungus, ready to send out to whitefly afflicted growers as soon as the rainy season sets in.

ENTOMOLOGY IN THE PREPAREDNESS CAMPAIGN

It is very important now, when the fortunes of the Nation may be at stake, that all the crops planted should produce the most possible. The cost of plowing, fertilizer, seed and cultivation is much the same whether a grower gets a half crop or a whole crop from the investment. At all events, a little greater effort and watchfulness at the critical time may result in a full crop, whereas letting up at a certain stage may result in getting only half a crop.

It appears to be a fact that, when a crop is planted in greater quantity, "bugs" are likely to attack it in larger numbers. We cannot attribute foresight to the "bugs," of course, but the farmer creates the opportunity and the bug, if about, takes it, on the principle, I presume, that "Nature abhors a vacuum." Given a place to live, something will find it, thrive and multiply.

It is apparent, therefore, that those who are trying to do their "bit" toward assuring the food supply of the Nation may experience much greater losses than usual from insect depredations, unless they keep a sharp lookout. *Watch that bug*, and *swat that bug* are imperative commands, voiced by the law of self-preservation. Now is the time, also, when growers should make more and better use than ever of the agencies provided by the government, state and federal, for the purpose of assisting in the control of insect pests and diseases. Of such agencies there are now several: The Florida Experiment Station and the State Plant Board, both at Gainesville, and the Bureau of Entomology, U. S. D. A., Washington, D. C. This latter agency also maintains two resident entomologists in Florida, namely; Mr. W. W. Yothers at Orlando and Mr. J. B. Gill at Monticello, Fla. While each of these agencies has its peculiar field of work, letters and specimens addressed to each will be promptly referred to the proper agency when necessary.

Entomologists all over the country are now making greater efforts to assist in the control of insect pests, by forecasting outbreaks, furnishing accounts of remedies to the press, and in other ways. The Bureau of Entomology, U. S. D. A., Washington, D. C., has inaugurated an "Emergency Entomological Service" which has for its object the gathering of information on insect outbreaks and furnishing timely information as to methods of control. This Bureau, under the direction of Dr. L. O. Howard is stationing additional entomologists in many states, in some instances in cooperation with experiment station

entomologists, and also has the cooperation of other federal and state agencies for reporting outbreaks of injurious insects.

Finally, it becomes the duty of all growers to keep a sharper outlook than ever over their crops, to report the first symptoms of insect depredations and to send specimens, in order that no efforts may be omitted to save the crop, and that they may be doing their full share in the "preparedness" program.

E. W. B.

SOME INJURIOUS INSECTS

The whitefly (*Dialeurodes citri*) has received a bad jolt this season over most of the State. The February freeze defoliated the trees, taking the larvae down with the leaves to perish on the ground as the leaves dried out. But let no grower flatter himself that the pest has been eradicated. Hosts other than citrus, such as wild olive (*Osmanthus americanus*), japonica, privet, etc., carried thru enough for "seed." The larvae were not directly injured by the cold but came thru in good shape on any plant whose leaves did not drop. With plenty of new leaves on which to breed, the third generation of larvae due in August and September, will, doubtless, in many localities become sufficiently abundant to make spraying imperative. Don't waste your money on "cure-alls." Use the parasitic fungi during the rainy season; after that the paraffin oil sprays. See Circular 168, U. S. Bur. Ent. or Bul. 123, Fla. Ag. Exp. Sta.

The Boll Weevil will "hit the trail" for his annual "hike" in August. He will probably get about to Ocala this fall unless someone has given him a "lift" in some cotton seed.

Some scattering specimens of the Fall Army Worm (*Laphygma frugiperda*) have been observed about Gainesville. This may or may not mean an outbreak later. This insect, also called the Southern Grass Worm, attacks especially plants of the grass family. Spray plants with lead arsenate, using two pounds to fifty gallons of water.

In August a pretty, velvety looking caterpillar will probably be found defoliating the vines in many places. It is the Sweet-potato Caterpillar (*Prodenia* Sp.). Spray as for the Fall Army Worm or use the cut-worm bait.

Have you tried the new remedy for chicken lice developed by the U. S. Bur. of Entomology—sodium fluoride? The editor has and reports it to be the best ever. Dust it on the old hen by the "pinch method, i. e., apply a pinch to her head, two to

her breast, two to her back, one under each wing, one around the vent, and one under each thigh.

Time to stop up the chimney with a wad of paper to keep out the malaria-carrying mosquito. It is taken for granted that no reader of THE BUGGIST will be foolish enough to live in an unscreened house.

The Velvet-bean Caterpillar has commenced his northward migration. By August he will need attention. Velvet beans are very sensitive to arsenic compounds but by mixing it with air-slacked lime one can dust the vines with lead arsenate. Use a dusting machine; the old bag and pole method does not spread it evenly enough. See Bul. 130, Fla. Ag. Exp. Sta.

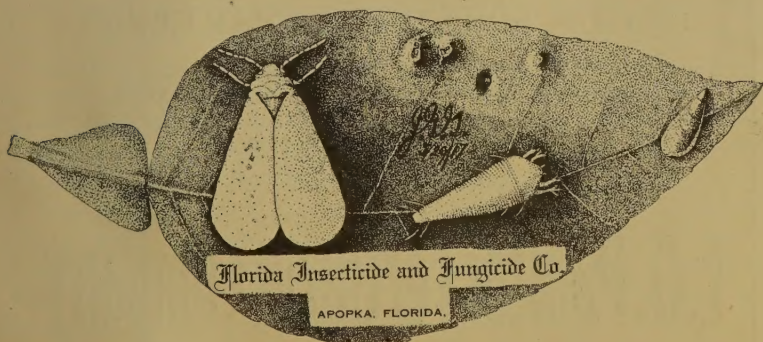
Printing for All Purposes

Carefully Executed
Delivered on Time

Pepper Publishing & Printing Company

Gainesville, Florida

To prevent rust on citrus fruits use our
lime-sulphur, the perfect spray for mites



For scale or whitefly use our emulsions

E.O. Painter Fertilizer Company

Now is the time to spray for trees affected with rust mite, scab or melanose. There is no better spray than

Sulpho-Citrol

the new lime Sulphur spray. It adheres about twice as long as the commercial lime Sulphur.

OUR INSECTICIDE DEPARTMENT

is the largest in the state. We carry a full line of all first class insecticides and fungicides.

Arsenate of Lead - Swift's or Corona, DeVoe's
Bluestone
Bordeaux Mixture
Genuine Avenarius Carbolinium
Caustic Soda
Carbolic Acid, crude
Copperas
Fish Oil Soap
Soluble Sulphur Compound
Sulphur Flowers, etc.

Fresh stock of goods always on hand.

IN OUR SPRAYING DEPARTMENT

we carry only the best and most reliable; such as Atsco Power Sprayer, Leggett's Champion Duster, Lowell's Compressed Air Sprayer, One Man Sprayer, and Gould's Sprayer.
Write for booklet and prices.

E.O. Painter Fertilizer Company

JACKSONVILLE, FLA.